FLIPPING SCRIPTS: MENTORING FOR SECONDARY READERS

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Researchers have reported that a variety of socio-cultural interventions can be used to increase positive attitudes toward reading for secondary students. A socially constructed reading intervention could add learning growth for a reluctant reading population. This study examines whether secondary students experience a measurable increase in positive attitudes toward reading after engaging in modeling and mentoring sessions with a much younger student and whether there is a perceivable difference in the secondary students' attitude following this mentoring activity. A variation of the one-way ANOVA, the Mann-Whitney U test, was completed to determine whether there was a statistically significant difference between these groups of students after participating in the reading intervention plan. It was determined that a small increase was found in one of the domains. The measurement survey is divided into four measured components that align with Albert Bandura's model for self- efficacy.

The results from this study indicated growth in only one of the measures, however, some of the outcomes in the other measures suggested potential growth in attitudes with a relaxation of these necessary experimental strictures. A limitation of this research was the change from face-to-face tutoring completed by the secondary student with elementary students in an afterschool program to the secondary student tutoring a younger member of their family who would be contactable during the stay-at-home orders in spring, 2021. The changes to the original experiment design were to accommodate for subject safety during the current worldwide pandemic of COVID-19.

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Introduction

Today, successful educational attainment has become a global priority, being elevated as a necessary component to be evaluated in the development of a country's human capital resources (Sellar & Lingard, 2014). Yet, a tension exists between the expense of new educational programs and the effectiveness of currently identified best practices in supporting these successful educational outcomes (Aikens & Barbarin, 2008). Global attention to the importance of educating every person (UNESCO, 2015a), questions of "What needs to be studied?" and "What is the most cost-effective way to enable a global education?" are being asked (UNICEF, 2007). This proposed study explores the effectiveness of a sociocultural-based intervention where secondary students with poor reading skills mentor younger students in reading aloud to determine whether this interactive learning context increases secondary students' attitude toward reading. If successful, this intervention may begin to suggest a low-cost, positive approach to addressing poor literacy rates in the United States.

Background

Long-Term Impact of Low Literacy Rates

One fundamental goal in successful educational attainment is reading literacy (Shah, 2016). The transmission of thought often requires an ability to receive and decode written communications across people, time, and geography (Hirsch, 2003). Despite this central importance of reading, people going through educational systems worldwide are not progressing at what has been proposed as an appropriate pace (Sims, 2014). This is true in the United States where literacy rates are lower than in many other industrial countries (Kutner et al., 2006; Okkinga et al., 2018). For example, the Organization for Economic Co-operation and

Development (OECD) countries reports rank educational success across nations with first ranking indicating highest performance. The United States is ranked 31st in Math, 24th in Science, and 21st in Reading out of the 37 countries (Sims, 2014).

The lower-than-expected literacy rates in United States' schools have been well documented. In a 2-year cycle, the release of the Nation's Report Card provides an indicator of the effectiveness of the U.S. educational system. This report, generated by the National Assessment of Educational Progress (NAEP), reports the results of reading and math tests given to a sample of students across the country. Educational experts view the tests as rigorous and highly reliable. In 2019, NAEP indicated steady and marked declines in reading ability at both the fourth and eighth grade levels. In a 4-year period, between 2015 and 2019 NAEP administrations of the reading test, eighth grade reading scores went down in more than half of the U.S. states. Since 1992, when the levels were set, fourth-grade reading has declined in 17 states. The average reading scores for 12th grade are lower now than they were in 1992, the first year the progress report was provided (NAEP, 2020).

Not surprisingly, the outcome of this low student literacy success rate in the United States is evident in U.S. levels of adult literacy. The 2003 National Assessment of Adult Literacy (NAAL) uses U.S. Census data to estimate rates of English literacy in U.S. adults, where adult is defined as a person 16 years of age and older living in households or prisons. In 2003, the NAAL reported that literacy rates had remained at a low level for the previous 20 years, hovering at around 14% of adults scoring below basic levels on prose reading (Alves et al, 2019; Baer et al., 2009; Kutner et al., 2006). Further, the NAAL reports 30 million adults in the United States cannot read above a basic level, where basic indicates skills necessary to perform simple and everyday literacy activities (Baer et al., 2009). This statistic remains valid even after subtracting

the 4 million adults identified as having language barriers that may inhibit their reading literacy (Baer et al., 2009). The reported stagnation in reading scores can lead to further problems in all fields of education because so many other curricular areas depend on basic reading ability (Aikens & Barbarin, 2008).

The Programme for International Student Assessment (PISA) is a global measure of reading proficiency and provides insight into reading disparities across socio-economically advantaged and disadvantaged students (American Psychological Association [APA], Task Force on Educational Disparities, 2012). The administration of the PISA in 2018 found no decrease in the 99-point gap (out of the total 505 points) between socio-economically advantaged and disadvantaged students. This disparity in reading ability exceeded all other OECD countries by more than 10 points (Schleicher, 2019). Within these contexts, the need to increase global literacy standards has reached a critical level of relevance and remains a clear concern in the United States (Boucekkine et al., 2007).

Low Literacy Rates and Impact on Teaching

In the United States, secondary teachers are reporting continued increases in the number of students who come into their schools lacking the skills needed for reading successfully at the high school level (Alvermann & Moore, 1991; Vaughn et al., 2019). The absence of decoding tasks places students at a disadvantage across academic topics as their continued educational activities are involved with increasingly specialized vocabularies that require detailed and deep comprehension tasks (Vaughn et al., 2019). Thus, this lack of reading skills negatively impacts students' overall academic progress (Vaughn et al, 2019).

These students are behind in reading at grade level and so, cannot engage with reading in the same level as their peers. Their intrapersonal experiences have not supported the activities

that would make reading an activity in which they would likely engage. These students have not been able to internalize the feelings that reading is something they can be successful with, nor can they interact with classmates in this academic task causing them to internalize a sense that they cannot read. These students are lost in a curriculum that depends upon advanced decoding for more sophisticated reading tasks and for completion of academic work across topic areas (Chall et al., 1990). Many times, these readers exhibit reluctance to read because the text they are working with does not hold cultural interest nor reflect their developmental level (McDonald, 2019).

Modeling Countries with High Literacy Rates

There may be some insight into how to address low literacy rates by examining the educational processes in countries with higher rates. In the 2006 PISA's international comparison of Reading Achievement studies, only two countries, Korea and Finland, showed statistically significant improvement in international performance in comparison to other countries (Shiel & Eivers, 2009). Conversely, 13 countries, including the United States, recorded significant declines (Shiel & Eivers, 2009).

In Finland, the social nature of reading instruction in that country's learning process builds on elements of sociocultural theory. Finland's cultural philosophy includes a very sociocultural approach by integrating an educational philosophy involving learners at different levels where students engage in reading activities within their country and with children in other countries. In this country's model, the community provides opportunities for students to interact with reading on three socio-cultural levels by integrating an educational philosophy that provides opportunities for the learners to interact with their reading on interpersonal, and sociocultural levels, along with their own individual aspects of the learning culture by reading.

Students interact on the interpersonal level by reading and sharing with others in their connections with classes and individual students in other countries, and they also are involved in an international book discussion group called, ‘netlibris’. Within this practice, experienced readers have opportunities to share in reading experiences with students at another level of reading. The Finland students also develop the learner on a sociocultural level by children read a portion of their homework, or books of choice, aloud to a designated family member using parents, grandparents, neighbors, and peers as possible audience members (Brueggeman, 2008; Garbe et al, 2014).

Literacy Challenges in the United States

The causes for the uneven distribution of reading development may be understandable when examined through the theory of sociocultural learning, and each could be potentially understood through sociocultural learning theory. Three contributors identified as leading to these educational disproportions in student achievement are: (a) social class differences in ethnic and racial groups that translate into educational disparities across groups, (b) differential treatment or bias in how ethnic and racial groups are treated within the educational system, and (c) differential responses across ethnic/racial groups (APA, Task Force on Educational Disparities, 2012; Quintana & Mahgoub, 2016). In relation to the latter, it has been proposed that in the educational setting, reading tasks may conflict with students’ cultural interests, and there are no acknowledgments or validation for the modern types of literacies, (gaming, technology, etc.) that the student values over the more standard forms of classroom literature (Franzak, 2006).

Several theories help understand the contributors to reading disparities, as well as what fosters student engagement and what learning settings impact students’ learning and

development of reading skills. For example, the sociocultural theory supports social scaffolding and, thereby, the idea that behavior and cognition depend on the construction of a metaphorical, social scaffold (Shabani et al., 2010). The educational intervention proposed here reflects both sociocultural theory (Bereiter, 1994) and social learning theory (Bandura, 1978; Dweck & Legett, 1988).

Socio-cultural theory describes how learning occurs within a socially shared space and when the student can be supported by a scaffolded interactive instruction that increases activities that impact the students' zone of proximal development (Morcom, 2015). Knowing that there are a wide variety of problems facing students learning to read and agreeing with Vygotsky's sociocultural approach indicating that learning best occurs in a social setting, the efforts to overcome barriers to successfully encouraging sidelined readers should be grounded within a closer understanding of the dynamics for social learning (Shabani et al., 2010). A sociocultural approach can address several of the underlying causes for students' reluctance to engage in reading activities. Contributing to the students' reluctance is a socially formed anxiety about being behind in the skills necessary for successful, on-grade reading (Jones et al., 2019). A further stigma arises when the students are given below grade, "kiddie books," to scaffold their instruction to a par with their classroom peers (Guthrie, 2008). This sense of shame leads many students to develop a very negative attitude towards the reading task, which only further exacerbates their ability to learn successfully (Akomolafe et al., 2013).

Working from the perspective of the importance of social interaction to learning activities, Bandura's work on social cognitive modeling theory also forms the basis for social activities to increase reading through the power of imitation and modeling (Ferrari et al., 2010). In recent studies, Bandura develops his view that an individual's concept of self-efficacy is

constructed through a triad of determinates (i.e., personal, environmental, and behavioral). Each of these determinants can play a role in students' sense of self-efficacy and, thereby, can impact their likelihood of continuing to work toward successful learning outcomes (Bandura et al., 2011).

This intervention plan then focuses not only on the sociocultural aspects of engaging reluctant readings in reading activities, but the framework for the intervention also builds, as well, on the role of environmental determinates to create a change in the student's attitudes. The intervention creates a different learning setting that can support students' sense of self-efficacy, which may have decreased due to environments that exist beyond the abilities of the individual to make compatible changes. A prescriptive approach to overcome these environmental limits begins to emerge. Through practices designed to promote Bandura's concepts of self- efficacy, secondary students can build a pattern of reinforcement that should create an attitudinal change (Finch & Frieden, 2014). The origins for Bandura's self-efficacy study begin with social learning theory and that will be the overarching theory for this dissertation study. Vygotsky's approach to the cooperative nature of learning and cognition has found acceptance among those who champion a social approach to problems of psychology (Roth & Lee, 2016).

Sociocultural Intervention to Improve Deficits in Reading

Answers to why students lose reading literacy progress in the transition from elementary school and secondary school has not been well addressed. Reading scores have remained flat since 1998, with just a third or so of students performing at a proficient level as determined by the NAEP. Wide performance gaps remain between lower-income students and those who are more affluent (Wexler, 2018). A review of recent literacy reports (NEAP, 2009) indicates that reading scores for adolescent students have remained stagnant and whole-class interventions

have proven ineffective (Okkinga et al., 2018) Based on what is known, a meta-analysis of reading interventions used in a whole classroom setting, Okkinga et al. (2018) found that there was no statistically significant advantage to existing interventions. If a constructivist, social-based approach is taken, thus de-emphasizing the direct instruction model that is most commonly used in secondary educational settings, the outcome may promote a more effective intervention model, particularly if it can be implemented in a manner that allows students to obtain higher personal attitudes toward the task by interacting interpersonally with others (Boling & Evans, 2008).

The goal of this study is to create a sociocultural interaction that may lead the secondary student to internalize a sense that they can be a good reader, and that they are capable in this task. This provides an internalization of reading as something that can be approached. With this, students' attitudes about reading and their expectations will be affected. Specifically, this study will focus on how the sociocultural theory, as a social learning approach to developing literacy, may be effective in meeting some challenges related to secondary students' literacy by helping the student to internalize that the acquisition of the skill for reading is something that they can achieve. Mentoring fits as a sociocultural learning experience because the experienced person is guiding the less experienced and, in this framework, the younger student is taking the part of the more knowledgeable partner because they have not lost the idea that reading is a positive thing to accomplish.

This study framework focuses on how increased literacy abilities can be achieved through social psychology principles, by creating effective opportunities for social interaction around learning and by encouraging engagement and scaffolding the activity of learning to read. This approach has the potential to benefit schools, administrators, teachers, and policy makers who

desire to increase their insight into how these principles can be used to make changes in their schools.

The social learning approach being implemented in this study is a peer-mediated reading intervention that impacts two groups of students. The approach is structured so that the secondary students are mentoring elementary students by listening to the younger students read and by prompting them in sounding out words, etc. This provides the secondary student an age-appropriate setting, i.e., tutoring of younger students, in which reading material is presented at a level with which they are comfortable. It is anticipated that the intervention activity will encourage secondary students' who may have suffered a loss in their sense of agency, or belief in their own self- efficacy in the traditional classroom setting, by giving the student the opportunity to reframe their learning through an activity designed to promote and encourage a new outlook toward their own reading ability and impact students' overall attitudes toward reading tasks. Second, it is anticipated that the elementary school students will benefit from the reading support and interaction with older students. Further benefit is social learning intervention is the feasibility of implementing this type of intervention, which can be achieved at a low cost. This could help shift the procedural perspective for peer-reading interventions. The goal of this study is to determine whether sociocultural theory can be used to drive an intervention process to promote attitudes in reading for a group of secondary students.

Present Study

This study explores whether a reading intervention constructed to promote sociocultural elements of the learning context can be associated with changes in attitudes toward reading for a group of predominantly Latinx secondary school students. Secondary students identifying as Latinx have been known to socialize differently with younger family members and previous

studies have labeled this socialization as a "a youth-driven process" (Umaña-Taylor et al., 2013). Given the demographic characteristics of the school, it is anticipated that the majority of participating secondary school students would be categorized as reluctant readers. The anticipated nature of the participating group is based upon historically patterned standardized testing results on this campus (i.e., students who have experienced little success in reading activities, including students for whom English is not their first language (i.e., English Language Learners) and students attending Special Education classes).

The intervention in this study provides a space for secondary students to sit with younger students who read for the secondary students. In this setting, the secondary students are prompters helping the younger students to decode and define difficult vocabulary words. The younger students would be reading materials at an elementary grade reading level, providing support for secondary students who may not be reading at their current grade level. It is proposed that this mentoring activity at a lower reading level will promote the secondary students' attitudes toward reading by applying principles of sociocultural and social learning in a non-threatening setting. Lockwood et al. (2010) showed that reading coaching had a significant effect on middle school students reading achievement, and this study uses the same principles, and applies them to increasing the attitudes of the coaches (Lockwood et al., 2010).

The aim of the currently proposed intervention will be to determine whether secondary school students who are enrolled in a traditional direct instruction model reading classroom experience a significant increase in positive attitudes toward reading after engaging in modeling and mentoring sessions with a much younger student. A second goal is to determine whether a 5-week intervention will result in this significant difference in the secondary students' attitude following this mentoring activity.

Research Questions

To address the study's aim, these following questions are examined:

Will a group of predominantly Latinx secondary students show a significant increase in positive attitude toward reading as measured by the Reader Self-Perception Scale 2 (RSPS-2; Henk et al., 2012; see Appendix E) after tutoring elementary students' reading in a structured learning activity in comparison to other students who continue with the Direct Instruction Model for class participation as usual practice. Furthermore, this study intends use the sociocultural contexts described above to explore the number of tutoring sessions that might be associated with change in adolescent students' positive attitudes toward reading, as assessed by RSPS-2 (Henk et al, 2012). It is proposed that for students who have previously held negative attitudes toward academically focused reading tasks will report more positive attitudes after engaging in a 5-week period of mentoring younger students who are attempting to acquire the skill of reading. With these goals in mind the following hypotheses were examined:

> Hypothesis 1. Secondary students in this study will show a significant increase in positive attitudes, across four domains of attitudes, of themselves as readers as measured by the RSPS2, when they act as reading mentors to elementary readers (Title 1 / Overview, 2021) over a period of five tutoring session.
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> Hypothesis 2. There will be a stronger association between attitude change as measured by the RSPS2 and engaging in a reading intervention plan with younger participants for Latinx adolescents in comparison to non-Hispanic White or non-Hispanic Black adolescents.

Methods

Participants

In the target school district, all ELA teachers (N = 3) invite junior year secondary school students (N = ~680) to complete the RSPS- 2 (RSPS2; Henk et al., 2012) as part of their usual course work. These students were mostly at the 11th grade level. However, a small number of

10th grade and 12th grade students were in the classes due to scheduling, from past course failures, or a variety other reasons that might account for that student to be off level in these classes. Those data were not singled out from the junior students.

Because the COVID-19 pandemic response and the hybrid classroom model experienced during the spring of 2020, there were fewer students completing the RSPS2 during the regular school activity. This resulted in a total of only $n \approx 400$ surveys completed across the approximately 680 students. The school district uses an inclusive philosophy for class populations so the students being surveyed represented all reading levels of student abilities and included both English language learners and special education students.

In administering the RSPS2 for the regular classroom purpose, the survey was conducted through a Google forms link that was provided to the students by the teachers. The results from that form were aggregated into a Google Sheets spreadsheet. These data collected for all participating students in the reading classes were stored in the researcher's Google Drive. At the end of the research study, the data for only those students who provided informed consent and completed the research project were downloaded to a separate Excel spreadsheet for analysis in the research project. The data included the matched research post-test data and anonymous Identification coding. Once collected, this final data set was determined and downloaded, the data were cleaned and sorted. There were no attempts to identify the students within the data set, other than the pairing of entry [pre-test] and exit post-test surveys, so struggling readers were combined along with the on-level students for an aggregated score. This research was approved by the researcher's university.

Procedures

Recruitment of Secondary Students

An announcement was placed in the Canvas courses for English Language Arts 3 for all students. The announcement offered all students an opportunity to respond if they wanted to take part in a university study about the way they perceived reading in school. A copy of the Parent Permission Slip (Informed Consent, Appendix C) was provided through a link to a Google form. Both parents and students were informed that participation was voluntary, there were no repercussions if based on opting out of the study, and that there would not be any grade consideration involved. This was provided for in the UNT IRB ethics approval documents.

To be eligible to participate in the study, secondary students had to be between 14 and 18 years of age. Given the ethnic composition of the school district, (i.e., 69.4% Hispanic, 18% non-Hispanic Black and 12.6% Other (non-Hispanic White, Asian, American Indian, etc.), it was anticipated that participants would be primarily students of color (i.e., Hispanic and non-Hispanic Black; Texas Tribune, 2020). Announcements were given in each eligible class, and teachers of ELA 3 classes encouraged students to learn about the research project. All eligible secondary students were given a description of the program (flyer) and an informed consent permission sheet, through Google Forms, during their class and encouraged to take this information home to share with their parents/guardians. The materials indicated that parents/guardians could contact the researchers by text or phone with any questions.

Parents/Guardians who chose to have their secondary student participate in the project, signed and returned the informed consent form noting their consent with electronic or typed signature (Appendix C). If no form was returned, it was presumed that the parent/guardian did not provide consent. A total of 225 of the approximately 400 secondary students (who initially took the classroom survey) returned Parent Informed Consent Permission slips allowing their

inclusion in the study and completed an informed assent. This accounts for 56% of the students that initially took the survey and 33% of the approximately 680 total available students.

Recruitment of Elementary Student Participants

Initially, the elementary students were invited from a 'feeder' elementary school that, at the time of recruitment, participated in an afterschool program for students who stay after the final bell due to parent schedules and the need for supervision in the late afternoon. There were several elementary schools invited to participate in this program. Any elementary student attending one of the programs was eligible to participate.

Group Assignments

A total of 225 students returned a signed parent/guardian consent form and a signed assent form. This group of students were randomly placed into two groups: Intervention Group and Control Group. The students assigned to the Intervention group engaged in the mentoring activity while the control Group students continued their ELA III class as usual without the described intervention.

To randomly sort the students, all 225 students were listed in a column of an Excel spreadsheet, and each student was assigned a random number using the Excel formula, =RAND. These numbered rows were sorted and students with the first 100 randomly assigned numbers were placed in the Control Group; the students with the following 100 numbers were placed in the Intervention Group. The remaining 25 students were not originally assigned to either group but were available to replace students in Intervention Group if needed to avoid attrition.

Procedure for Assessments

Pretest Assessment

All 225 participating ELA 3 students had previously completed the RSPS2 survey, as part of a regular classroom activity, before the first tutoring/intervention session. Only students who returned the parent documentation and permissions were counted as a part of this study. The other prior surveyed students' results were deleted from the data, and not included in any of the measurements for the experiment. The pre-test data was derived from the survey results of this whole class survey. After completion of tutoring and the return of the tutoring logs from the Intervention Group, those students and the Control Group both completed the RSPS-2 a second time. These results were matched to the whole class surveys to provide entrance and exit data.

Post-Intervention Assessment

Following the initial assessments, the Control Group continued their regularly assigned reading tasks in their ELA classes for the 5-week period and the Intervention Group engaged in tutoring. Both Intervention and Control Groups students retook the survey at the end of week 5. Following the completion of these second assessments, students in the Control Group were offered an opportunity for tutoring in the elementary school.

Planned Tutoring Procedures Prior to COVID-19 Pandemic

In the more traditional mentoring model, a more knowledgeable other (MKO) student will monitor and adjust the efforts of a student with less skill in the targeted area. In most examples of mentoring between a secondary student and a younger student, it would be the expectation that the MKO would be the secondary student. In this model, these roles were altered. In most academic endeavors and in the basic academic environment, the secondary student was the MKO in comparison with the elementary student. This familiarity with that academic structure helps to create a sense of efficacy in reading that the secondary student

wouldn't have experienced in the high school setting among peers who have not experienced similar difficulties in reading.

Thus, the goal of mentoring was to create a sense of efficacy for the secondary student that could move the secondary student toward more complicated reading tasks, like engaging in reading and moving from a reluctant to an engaged learner. The elementary student also shared a cooperative role as the MKO through the excitement and novelty of using reading as a societal tool to engage with an older student. This excitement and novelty were the senses that the secondary student has lost. So, by sharing this enthusiasm with the secondary student, the elementary student helps move the secondary student in their zone of proximal development toward more reading tasks and thus bolsters their efficacy and sense of reading.

The research design planned for face-to-face mentoring tutoring session. When high school students were to arrive at the elementary schools' after-school programs, they were to be met by the site coordinator and be introduced to their elementary partners. There was to be a brief time allotted for the elementary students to meet and discuss their own thoughts and challenges about reading, while mentor students would listen and answer clarifying questions for the elementary students. The high school students were then to be given conversation starters to ask the elementary students about the books that they would read. These were simple questions, such as why the child wanted to read that specific book and whether that book was similar or different to other books the child had read in the past. The purpose behind these interview periods was to help form bonds between the different aged students.

After this brief session, the secondary school student and the elementary student dyads were to spread out as space allowed to read. The high school students were to sit quietly and listen to the readers and would give advice or help when the reading student was having a

problem in word identification or pronunciation. The secondary students were told to answer any direct questions the students asked about the content of the books, as long as the older student felt comfortable with their ability to explain.

At the end of the hour-long session, the secondary school students were intended to be provided an optional script that they might use to thank the younger students for reading with them. The script was being provided to help socially shy or second language students comfortably end the session without embarrassment and to ensure that the elementary students received positive reinforcement for participating in the activity.

Tutoring Procedures Adapted for the COVID-19 Pandemic Response

The planned intervention required significant changes due to the COVID-19 pandemic safety guidelines for social distancing and isolated groups. Tutoring was originally scheduled to occur across five weekly sessions scheduled for 1-hour per week during the elementary students' afterschool program. Mentor students in the Intervention Group had been encouraged to carpool with each other, and a final coordination for rides would have been coordinated as the students left the high school to provide for students who could not find a ride on their own. In this original planning, there would have been no need to permanently pair the dyad of secondary and elementary student. This anticipated an allowance for the secondary student to tutor the same or different elementary student from one session to the other. There was another administration of the RSPS2 survey at the end of the Intervention Groups' tutoring sessions directly following the fifth week of tutoring.

Accommodations developed to satisfy safety concerns for COVID-19 pandemic response included identifying younger readers differently given the elementary after-school programs to be used had been put on a hiatus by the district before the elementary students were even

contacted. The new social distancing protocols made the in-person reading impossible. High school students were informally polled about continuing in the study and how to change the procedures, by asking students during class. Based on the responses, the protocol was changed to allow the high school students to tutor younger siblings or other younger members in the household. This allowed the tutoring to continue within the isolation period of the pandemic response as the students self-selected their reading partners from home, instead of the more formal guided approach. The secondary school students were instructed to complete a mentoring log validating the 5 hours of mentored reading. Students were instructed to complete the five hours of mentoring over a week-long Thanksgiving Break and the elementary students previously planned for recruitment for the project did not participate through this amended research design.

Measures: Attitude Toward Reading (Benchmark Assessment)

The Reader Self-Perception Scale 2 (RSPS2) is used to evaluate the attitudes of the adolescent reader for this study. The RSPS2 consists of 47 questions; 46 addressing modes of influence; one question was a general question that evaluated the student's impression of themselves as a "good reader". This question was later deleted from the survey (Henk et al., 2012) and was not used in this study.

This scale, developed by Henk et al. (2012) reflects Albert Bandura's self-efficacy model that identifies four basic factors for evaluating a student's reading ability (Bandura, 1977). This model describes these factors as Performance Progress (16 items), Observational Comparisons (9 items), Social Feedback (9 items), and Physiological States (12 items). The RSPS2 consists of 46 items correlated with the four scales: Progress, Observational Comparison, Social Feedback, and Physiological States) (Henk, 2012). Within the described model, the factors of social feedback

and enjoyment of task are particularly important to this study. When students take the RSPS-2 survey, they are instructed to read each statement and respond with how much they agree or disagree with it. Students respond on a 5-point Likert scale where 1 = *strongly disagree*, 2 = *disagree*, 3 = *undecided*, 4 = *agree*, and 5 = *strongly agree* (Henk et al., 2012).

The survey takes about 20 to 25 minutes to complete. As a school wide assessment, the classroom teachers start by describing the purpose for the survey and work through the assessment example. The teachers then stress to the participants that they should answer as honestly as possible and that there are no right answers. Students also are instructed to ask about any part of the instrument they did not understand.

The answers from the students' surveys were aggregated into the four domains of Progress [sample statement: "I read better now than I could before."], Observational Comparison [sample statement: "I need less help than other students when I read."], Social Feedback [sample statement: "Other students think I'm a good reader."], and Physiological States [sample statement: "Reading is a pleasant activity for me."]. Raw scores were computed as the total of ratings for each of the four scales.

Analyses

There is a debate about the most appropriate method to analyze data from a Likert Survey. Some scholars advocate a proportional evaluation, since there are no true measures of the distance between judgements such as *Strongly Agree* and *Agree* (Jamesion, 2004). Others find acceptance in an analysis of the means. After the pre-mentoring Benchmark scores were collected, the survey data was fit through a Confirmatory Factor Analysis (CFA) to determine how the indicator variables of the survey statements reflected the latent variable groups defined by Henk (2012), to insure consistency within the study design

There were 225 students that returned the required permissions. By aggregating these responses, a baseline/benchmark measurement was computed. In the Benchmark measurements of this study the following descriptive means are presented in Table 2b. As shown by the mean figures, the students in the benchmark measurements are just slightly above the neutral response from the RSPS2 survey items in all domains.

In this study, a between-subject design was used because the two groups were independent with no overlap between students in each group. The independent variable will be the student group (intervention or control), the dependent variables will be the survey scores from the four domains of attitudes, observational comparison), social feedback, and physiological states, and progress. These scores reflect the attitudes toward reading as measured through the RSPS2. The RSPS2 is an open-sourced survey designed to be used with students (Henk et al., 2012).

Results

To determine the validity of Hypothesis 1, a Mann-Whitney U test, a variant of the one-way ANOVA, was used to evaluate the differences between the Intervention and Control groups as this analysis can be used with either ordinal or continuous variables. The Mann-Whitney U also compensates for the fact that the two groups had the same teachers and were exposed to the same curriculum, which made the independent status of the group observations suspect of violation (Fong & Huang, 2019). The independent variable was the reading intervention; the dependent variables were the scores from the four domains of reader self-perception scale toward reading measured through the RSPS2.

A Mann-Whitney U test was run, after certifying the assumptions, to determine if there were differences in attitude scores in four domains, as measured by the RSPS2 survey, between

the intervention group and the control group. Distributions of the attitude scores for Intervention and Control were similar, as assessed by visual inspection. Attitude Toward Reading score was statistically significantly higher in Social Feedback than in the other domains (*Mdn* = 3.00), *U* = 4701.50, *z* = -2.250, *p* = .009.

Distributions of the attitude scores for Intervention and Control were similar in the other three domains, as assessed by visual inspection. However, in these domains, the attitude scores were not statistically significantly different between the two groups. In the Observational Comparisons domain (*Mdn* = 3.00), *U* = 5067.50, *z* = -1.293, *p* = .113; Progress domain (*Mdn* = 4.00), *U* = 5141, *z* = -1.109, *p* = .151; Physiological States (*Mdn* = 3.00), *U* = 5274.50, *z* = .792, *p* = .667. Thus, hypothesis 1 was partially supported.

An effect size calculation was run for each domain measured with the Mann Whitney U test, using $r = \frac{z}{\sqrt{N}}$. For each domain excepting the SF domain (*r* = 0.15), the effect sizes were negligible and below 0.01.

To examine Hypothesis 2, a two-way MANOVA was run with two independent variables: Ethnicity and Treatment; – and four dependent variables: Observational Comparisons, Social Feedback, Physiological States, and Progress scores. The combined Ethnicity and Treatment scores were used to assess attitudes towards reading in a sample of secondary students.

There was a linear relationship between the dependent variables (after consolidating two of the levels in the Ethnicity variable, African American and Other: non-Hispanic White, Asian, American Indian, etc.) as assessed by scatterplot, and no evidence of multicollinearity, as assessed by Pearson correlation ($|r| < 0.9$). There were no univariate outliers in the data, as assessed by inspection of a boxplot, and no multivariate outliers in the data, as assessed by

Mahalanobis distance ($p > .001$). Observational Comparison and Social Feedback Composite, Physiological States, and Progress scores were normally distributed, as assessed by Shapiro-Wilk's test ($p > .05$). There was homogeneity of covariance matrices, as assessed by Box's M test ($p = .009$), and homogeneity of variances, as assessed by Levene's Test of Homogeneity of Variance ($p > .05$).

The interaction effect between Treatment and Ethnicity on the combined dependent variables was not statistically significant F (12, 1098.278) = 1.054, $p = .396$, Wilks' $\Lambda = .970$, partial $\eta 2 = .010$. A further examination into the main effect of the IVs, Treatment and Ethnicity revealed that there were statistically significant intervention effects on the individual dependent variables, Treatment F (6, 830) = 2.424, $p < .025$, Wilks' $\Lambda = .966$, partial $\eta^2 = .017$. While Ethnicity returned F (6, 830) = 2.199, $p < .041$, Wilks' $\Lambda = .969$, partial $\eta^2 = .016$.

A univariate main effects analysis was conducted for the Treatment score. There was a statistically significant main effect in Treatment for the Observational Comparison and Social Feedback composite F (2, 1139.328) = 6.516, $p = .002$, partial $\eta^2 = .0030$ and for the Progress Domain score, F (2, 692.745) = .788, $p = .023$, partial $\eta^2 = .018$, but not for Physiological State Domain score, F (2, 305.752) = 2.426, $p = .090$, partial $\eta^2 = .012$.

For the univariate main effects analysis in the Ethnicity scores, a positive result was found in the Observational Comparison and Social Feedback composite F (2, 1051.540) = 5.713, $p = .004$, partial $\eta^2 = .027$, but not in the Physiological States Domain, F (2, 154.32) = 1.224, $p = .295$, partial $\eta^2 = .006$, nor the Progress Domain, F (2, 400.700) = 2.191, $p = .295$, partial $\eta^2 = .006$.

As such, a simple comparison was conducted under Treatment in the Observational Comparison and Social Feedback composite score and the Progress score. There was a

statistically significant difference between the Treatment level of Entry (Benchmark) to Intervention. The marginal means for Observational Comparison and Social Feedback composite score were *-4.541 (SE = 1.617)* for the Entry-Intervention Treatment levels and *61.60 (SE = 1.03)* for the Entry-Control Treatment levels, a non-statistically significant mean difference of *0.613, 95% CI [-4.44, 3.217], p = .925.*

Simple comparisons were run for the differences in mean Ethnicity scores between LatinX students and students in the Other ethnicities group (i.e., non-Hispanic White, Asian, American Indian). The means for Observational Comparison and Social Feedback composite scores were -4.529 (*SE* = 1.899), and -3.829 (*SE* = 2.016) from the LX to the African American (AA) interventions. There was a statistically significant mean difference between the LX to OT Ethnicity scores, 4.529, 95% CI [-8.996, -.062], $p < .046$, The mean difference between the Ethnicity Groups, LX-AA, was not statistically significant, -3.829, 95% CI [-8.570, .912], $p < .40$.

Discussion

The mentoring sessions were primarily completed during week-long the Thanksgiving break, instead of the originally scheduled five-week period. When the students returned to campus, there were several accounts that showed a positive reaction with the families. One student reported that his brother was now bringing him a book almost every night to read with him before bedtime, and another told her teacher that her sister was reading for the entire family after dinner that holiday. In the classroom discussions, the sense was generally that many of the participating students were happy that they had taken part in the study. However, with the method of self-reporting in the student logs, the possibility for inconsistencies in the mentoring

practice do exist. There is no certainty that all the students followed the mentoring protocol as it was designed and any of the results may be subjected to this uncertainty.

Nevertheless, even though the original mentoring protocol was shortened in the planned weekly time period schedule, and the elementary readers were chosen from a family convenience pool of siblings, there were still some positive outcomes.

In the first hypothesis, we look to see if there is a statistically significant difference among the Intervention Group and the Control Group in four domains that reflect Bandura's (1977) four domains of self-efficacy. It appears that there was little statistically significant growth in the first three domains of Observational Comparison, Progress, and Physiological States across the short time of the intervention. However, there does appear to be change in the domain of Social Feedback.

Karl et al. (1993) examined the relationship between self-efficacy, feedback, and performance in a training setting and provided reinforcement for the work of Bandura. They found that feedback had a significant impact on change in self-efficacy perceptions for low self-efficacy individuals but not high self-efficacy individuals. This would appear to suggest that the self-efficacy of low self-efficacy individuals was more predisposed to influence from external cues than that of high self-efficacy individuals. They concluded that performance feedback provides information about prior performance and serves as a basis for evaluating one's capability to perform successfully on subsequent tasks (Karl et al., 1993)

In the second hypothesis, the hope was that some judgements can be derived about whether judgement could be made about the optimum length of the Intervention to see a change in attitude. However, after the study modifications required to protect subjects from violating the

social distancing protocols, this became difficult to measure and must be relegated to a later examination,

In studying the effects of ethnicity on reading attitudes through the RSPS2 survey, the data suggests that the Hispanic/Latinx students were more closely aligned in their attitudes toward reading with those students who identified themselves in the Other ethnic category than to those students in the African American group. There are no obvious indicators for this alignment found through this study, it was an interesting anomaly that might indicate investigation in a subsequent study. One possibility is that the discrepancy between the ethnic groupings may have been attributed to a confounding factor. During the assumptions testing there appeared to be some anomaly in this group. It was not following the linearity patterns of the other groups. In looking over the survey results in the African American group, it was discovered that an unusual number of respondents had the exact same measurement as others across all 46 items. This seemed to indicate that there had been a coordination in answering the survey among the students. At this school being surveyed, there is a concentration of teammates all in one class from the school athletic department. The survey results may have been influenced by this social grouping, especially in such a small sample.

The higher scoring for attitudinal change within the LatinX grouping might be accounted for due to the differences in family dynamics. Since the mentoring process was opened up to allow students to choose their own family members, parental oversight and the alternative childhood socialization, which has been established for this group may have had a positive influence on the results (Zayas & Solari, 1994).

In evaluating the responses from the survey, it appeared that a small number of students may have answered without actually reading the survey prompts. There were a couple of

extremes from both sides of the Likert items. Although these responses were filtered out in the outlier assumptions, in future applications of the survey it may be advantageous to reverse the wording of some of the prompts. Thus, being able to find these students by catching their reverses in positive/negative responses and more easily and reliably excluding them from those who have consistent replies.

The nature of mentoring is a highly social activity, and after making allowances to increase safety for students during the COVID Pandemic of 2020, these accommodations may be responsible for limiting the changes in the domains, making the change found in social functioning of the mentoring process appear to be reasonable (Van Emmerik, Gayle Baugh, Euwema, 2005). Perhaps a subsequent study can be performed after the COVID pandemic has passed and a more desirable outcome would emerge. The loss of structure for the mentoring activity seemed to negate opportunities for reflection in the adolescents. This reflection might be key to the growth that seems to be missing in the first three domains.

The students who completed the Intervention provided qualitative anecdotes that suggested there was merit in this approach, however the circumstances for the execution of the experiment may have seriously flawed the results. Even though there is little evidence of growth in the other domains, a systematic series of steps that are designed to accentuate or promote the other domains could be easily added into the intervention plan to foster the desired pillars of self-efficacy described by Banda (1977). For example, adding a few prompts to encourage the secondary students to reflect on how they feel before mentoring, and then after mentoring, might help foster their replies in the Physiological States domain, while additional prompts regarding their own classroom efforts directly after a mentoring session might help foster ideas in the Progress domain. These steps would appear to be easy to implement and may warrant further

exploration in a later study.

As previously mentioned, there are three factors acknowledged as leading to educational inequities in student achievement: social class differences in ethnic and racial groups, discrepancy in dealing with the way ethnic and racial groups are handled within the educational system, and differential reactions across ethnic/racial groups (APA, Task Force on Educational Disparities, 2012; Quintana & Mahgoub, 2016). The theoretical concepts of these ideas provide a pragmatic suggestion to approach the previously mentioned deficits in an educational intervention for improving reading attitudes and thus the scores on reading assessments.

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Table 1

Descriptive Statistics from the Benchmark Survey

Descriptive Statistics[a]

	N	Sum	Mean		Std. Deviation	Variance
	Statistic	Statistic	Statistic	Std. Error	Statistic	Statistic
OC_Domain_Mean	225	691.222	3.07210	.056663	.849942	.722
PR_Domain_Mean	225	778.125	3.45833	.055846	.837693	.702
PS_Domain_Mean	225	691.333	3.07259	.063124	.946866	.897
SF_Domain_Mean	225	659.333	2.93037	.048459	.726887	.528
Valid N (listwise)	225					

[a]. Groupr = 1

	N	Minimum	Maximum	Mean	Std. Deviation
OC_Dom_Sums	225	9.000	45.000	27.64889	7.649481
PS_Dom_Sums	225	12.000	60.000	36.87111	11.362387
PR_Dom_Sums	225	16.000	80.000	55.33333	13.403091
SF_Dom_Sums	225	9.000	45.000	26.37333	6.541980
Valid N (listwise)	225				

[a]. Groupr = 1

Table 2

Testing for Differences between Benchmark and Treatment Groups

Group Statistics

	Groupr	N	Mean	Std. Deviation	Std. Error Mean
OC_Domain_Mean	1	225	3.07210	.849942	.056663
	2	212	3.15356	.945537	.064940
PR_Domain_Mean	1	225	3.45833	.837693	.055846
	2	212	3.52801	.927468	.063699
PS_Domain_Mean	1	225	3.07259	.946866	.063124
	2	212	3.20047	.981750	.067427
SF_Domain_Mean	1	225	2.93037	.726887	.048459
	2	212	3.06866	.820216	.056333
OC_Domain_Median	1	225	3.00444	.928217	.061881
	2	212	3.13679	1.046395	.071867
PR_Domain_Median	1	225	3.50000	.918559	.061237
	2	212	3.55660	1.034524	.071051
PS_Domain_Median	1	225	3.06222	1.076595	.071773
	2	212	3.15330	1.143222	.078517
SF_Domain_Median	1	225	2.92889	.831474	.055432
	2	212	3.08019	.953012	.065453
OC_Dom_Sums	1	225	27.64889	7.649481	.509965
	2	212	28.38208	8.509836	.584458
PS_Dom_Sums	1	225	36.87111	11.362387	.757492
	2	212	38.40566	11.781002	.809123
PR_Dom_Sums	1	225	55.33333	13.403091	.893539
	2	212	56.44811	14.839493	1.019181
SF_Dom_Sums	1	225	26.37333	6.541980	.436132
	2	212	27.61792	7.381947	.506994

Table 3

Test Statistics from Mann-Whitney U Test

Test Statistics[a]

	OC_Domain_Median	PR_Domain_Median	PS_Domain_Median	SF_Domain_Median
Mann-Whitney U	5067.500	5141.000	5274.500	4701.500
Wilcoxon W	10738.500	10812.000	10945.500	10372.500
Z	-1.293	-1.109	-.792	-2.250
Asymp. Sig. (2-tailed)	.196	.268	.428	.024

[a]. Grouping Variable: Treatmentr

APPENDIX A

EXTENDED LITERATURE REVIEW

The idea of viewing reading literacy as part of a human capital agenda has stimulated discussions for education to be a foundation in creating policy interventions meant to improve the welfare of individuals and strengthen the economic health of nations (Sellar & Lingard, 2014). Toward the goal of addressing literacy, the World Education Forum (WEF) 2015 was formed from a coalition of 160 countries with 1600 participants. The WEF was comprised of representatives from the teaching profession, the heads of a variety of governmental agencies, and many agents from the private sector. These educational stakeholders gathered under the direction of the United Nations Educational, Scientific, and Cultural Organization (UNESCO) in the Republic of Korea to adopt the "Incheon Declaration for Education 2030" (SachsIsrael, 2016). This Incheon Declaration, a part of the more comprehensive UN's 2030 Agenda for Sustainable Development (ASD) provides a framework to satisfy the mandates of Goal 4 from that agenda, which states: "(to) Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all" (UNESCO, 2015b).

UNESCO wants to establish the Organization's legitimacy as the world's authority in the area of educational policy. The language of the Incheon Declaration makes this clear on the very first page of Framework for Action for the implementation of Sustainable Development Goal 4 Education 3030 by the statement cited above about "learning opportunities for all" (UNESCO, 2015b). UNESCO's previous efforts to initiate educational reform in the post-cold war era fell short and underwent criticism from poorly designed mechanisms in consistent monitoring and reliable assessment (Edwards et al., 2017). The 2015 Education for All (EFA) standards and the subsequent "Incheon Declaration for Education 2030" seek to alleviate perceptions of weakness by improving both globally and nationally and examining the measurement tools currently in use to provide evidence of growth in reading literacies.

One of the foundational aspects of this subsequent worldwide push for universal education is to define and support lifelong literacy (Benavot, 2015). According to UNESCO 2015, there are about 750 million people worldwide who do not have functional literacy skills (UNESCO, 2015a). However, an aspect for the study of literacy is an analysis of what 'literacy' actually means when defined through a global perspective. The old paradigm for reading literacy, was as an act of acquiring the skill of decoding and gathering information from printed textual sources. (Goldman, 2012), establishes a need to assess and manipulate data from an ever-growing fountainhead of resources, such as electronic means, news outlets, and social media (Schleicher, 2010).

The desire to assess and monitor educational achievement on a global scale is also not new. According to Meinck and colleagues (2017) International Large-Scale Assessments (ILSAs) for providing education and measuring growth, have been documented by the International Association for Educational Achievement (IEA) since the mid 1950s. In that time, ILSAs have become the accepted method for gathering information to guide educational research and to inform policy for educational attainment within international organizations. Beginning in the1990s, the focus for ILSAs transitioned from a broader effort to the measuring of basic domains of reading, numeracy, and science. This shift incorporated a concentration on accountability and evidence-based education policies. This change increased the emphasis placed on the results of ILSAs and in the proliferation of national observations. Enhanced data collection and data processing techniques were also facilitating the collection of educational data more efficiently and reliably (Meinck et al., 2017).

However, the means for evaluating the effectiveness of measuring educational achievements on a global scale run into challenges when they are confronted with the contexts of

language barriers, economic constraints, and social disparities. In order for these educational measurements to be fair in all contexts, careful attention and efforts must be made to hold a level means of assessment, both across and within the groups and subgroups being measured. This standardizing of the assessments has resulted in three major evaluation tools, the Trends in International Mathematics and Science Study (TIMMS), Progress in Reading Literacy and Studies (PIRLS), and Program for International Student Assessment (PISA), which have risen to the forefront for international comparisons.

Each of these tools serve a distinct purpose and target for measurement. The International Association for the Evaluation of Educational Achievement (IEA) develops and administers the TIMSS, which measures elementary progress in Math and Science curricula, along with the PIRLS. The IEA has been used also as the organization's international reading assessment tool (Barro & Lee, 2001). The Organization for Economic Cooperation and Development (OECD) developed the PISA, which also has become a widely common implement for literacy measurement (Schleicher, 2010).

Through a careful, systematic review of efforts being made in literacy studies, psychological principles may be useful to explain performance in this area and allow for an explanation of the complex mental and social drives that are embedded in the activity. Reading literacies are not a new field of study, but the statistical analysis for data and removing political appointees from the governance boards may be new and responsible for opening up a new form of dialogue (Edwards, et al, 2017).

There are many reasons why U.S. secondary students' reading scores have fallen behind the expected growth curve. This lack of progress may be evidenced by problems in the Common Core and the precipitous deficiencies with standardized testing tools (Williamson et al., 2014).

Factors also may include economic development, racial disparity, and instructional/educational deficits, all of which contribute to the lack of growth in literacy scores (Bausmith, 2012). Educational researchers have not found any one single cause nor any one single remedy. There have been many unsuccessfully or only minimally successful interventions conducted in the U.S. to close these gaps through the efforts engendered through the No Child Left Behind Act (CochranSmith, 2005; Hunt, 2008; Matthis & Trujillo, 2016), Race to the Top (Howell, 2015), and other educational initiatives (Benavot, 2015). Educators and researchers have been frustrated in their efforts to explain the existence of the gap but have found that socio-economic factors seem to account for the largest portion of race/ethnicity gaps (Paschall, et al., 2018).

Perhaps some theoretical psychological system may shed light on the deficiencies. Whittrock (1979/2010) uses a Constructivism approach to introduce a generative model for learning behavior holding that "people tend to generate perceptions and meanings that are consistent with their prior learning" He finds that the learners relate past experiences with new learning and develop these experiences into a concrete association within long term memory. Whittrock calls for the use of transfer designs to integrate research in development, human cognitive learning, abilities, and attitudes (Whittrock, 1979/2010).

Whittrock's generative model shows some of the flaws in the direct instruction method of literacy teaching. A student who held negative environmental biases toward tasks of reading literacy in a traditional school setting, will carry a resulting negative emotional load and his or her progress may be reduced due to these responses to the environment where the reading occurs. By altering the environment to accommodate a shift in the learning process an increase in engagement might be anticipated.

The traditional direct instruction model (DIM) of teaching described by Edward

Thorndike and taking influences from the Darwinian ideas of selection define the act of learning as a "selection of successful behaviors that lead to new behaviors" (Catania, 1999). Additionally, Palinscar describes the role of the teacher as the primary source of learning. The teacher parses the information to be learned and determines the appropriate support structures to accommodate the learning, the teacher also determines the assessment criteria for measuring the student's mastery of the concepts being taught.

Palinscar also recognizes the weakness of this method to stimulate reasoning and problem solving as higher order thinking skills. The student in this model is only a passive participant. A higher and more effective method of teaching calls on the learner to create the structure most expedient in helping them to learn. This elevated method for creative problem solving relies on building cognitive structures such as schemata and heuristics, and these structures are defined through type of constructivism described by Whittrock (Palinscar, 1998).

Creating a way to alter these perceptions in the constructed environment where learning occurs may lead school policy makers to see another approach. They may hopefully find different techniques which will give students another means to succeed at a task historically difficult, reading. Understanding this difficulty can lead to a pragmatic understanding for a way to institute a low-cost alternative to some of the more sweeping and expensive alternatives in literacy skills touted by salesmen for programs to change flagging results in the standardized testing.

Ferrari et al. (2010) examine the work of Albert Bandura within an overall context of his contributions, which were in turn influenced by Wilhelm Wundt and Lev Vygotsky. Bandura supports the work of his predecessors by determining that the learner will be either hindered or helped, reflecting his or her beliefs in their own abilities to learn. Learners internalize social

models, and through these models which depend upon past experiences, develop beliefs about their efficacy to achieve their learning goals within specific environments. This self- imposed 'ability to act' explains the way that children take in social influences. These influences can be absorbed vicariously when observed in a model close to the experiences, historically and culturally like those of the learner (Ferrari et al, 2010).

The historical and cultural influences can be activated to create a more effective learning environment. Cole (2005) examines the deficiencies of the direct teaching method and advocated for a stronger alignment with the cross-cultural and historic orientation in educational activities. Using a more symbolic approach to define culture as a place for growth and building the case for such understanding as derived from an early practice of the word's agrarian meaning, Cole goes on to apply that usage to education as a protected place of growth. Applying the term "institutionalized enculturation" to define schooling, Cole shows that education occurs throughout all cultures, even when that society may not have a formalized system of education. Cole proceeds to show that the development of formal education separates the learner in many ways from his society, and that has been true since the historic changes in humanity from individual hunter/gatherers to more organized social structures in ancient Samaria, Egypt, and China. The loss of culture, and the face-to-face teaching method of more primitive societies has led to an encapsulation effect in schooling and segregated age cohorts of learners (Cole, 2005).

Constructivism is a wide encompassing term that has many subtopics embedded into it. Before a strategy can be developed to apply toward an intervention hypothesis for a reading plan, this broad term needs to be narrowed. In the beginning, Jean Piaget (1958/2005) claims. that from birth a human being is bound to its social environment and from that environment finds the tools, symbols, and schemata that foster meaning, and subsequently intelligence (Piaget,

1958/2005). In short, constructivism is the act of bringing what we know and have experienced into the act of learning and using prior knowledge to derive meaning from the learning. This developmental model of constructivist thought provides a biological means to build a model for a reading intervention hypothesis. All human learners face a need to construct meaning from their social interactions.

Franzak (2006), suggests, after reviewing a wide scope of publications, that marginalized readers do share some characteristics. Although her research centers on activities within the U.S.' educational system, the discussions about cultural capacities and social practices may be easily extrapolated into a global pattern. More students are being educated than ever before in a time of competing medias for literacy, while the educational systems remain enmired within traditional modes of literacy instruction.

Now that the problem of poor reading literacy has been established, and previous measurement tools explored, the logical focus of this paper moves to examining the practices within the classroom which result in these poor literacy skills. Within the previously described context of stagnant reading scores, and concurrently during a time of focus upon the need to increase education to all parts of society, methods can be developed that use psychological principles to find best practices to make this goal effective.

In looking at global reading scores and in the areas where the lowest scores are being reported among immigrating families, this tension between the two teaching styles may be complicit in failing to engage reluctant readers. A method that integrates the two; the direct instruction method favored in schools within developed countries and the more personal method from less developed countries may help create a transition.

This study advocates a method to use social learning theory and adolescent developmental assets. Damon (2004) makes the case that adolescents are continually examining their place within a moral stage of development to determine who they want to be (Damon, 2004). In the intervention being proposed, students will be encouraged to create new ways of thinking about academic reading tasks, by making a change in the structure of that task. The students to be measured are from a school that has been historically 'low performing' on Texas' STARR exams). Successful outcomes following this intervention plan are carefully developed to incorporate social learning principles, these students will be able to succeed in working with low-level reading tasks while retaining a high level of self-esteem throughout the process. Subsequently, the success that these students will hopefully achieve should be quantifiable and transferable to other reading tasks in a less structured classroom setting.

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APPENDIX B

SURVEY STATEMENTS FOR EACH MEASURED DOMAIN - OBSERVATIONAL COMPARISON (OC)

The Observational Comparison (OC) survey statements are:

- I need less help than other students when I read.
- I read better than other students in my class.
- When I read, I can figure out words better than other students.
- My reading comprehension level is higher than other students.
- I read faster than other students.
- When I read, I can handle difficult ideas better than my classmates.
- When I read, my understanding of important vocabulary words is better than. other students.
- I know the meaning of more words than other students when I read.
- I am more confident in my reading than other students.

The Social Feedback (SF) survey statements are:

- Other students think I'm a good reader.
- My classmates like to listen to the way that I read.
- My teachers think I am a good reader.
- My teachers think that I try my best when I read.
- People in my family like to listen to me read.
- My classmates think that I read pretty well.
- I can tell that my teachers like to listen to me read.
- My teachers think that I do a good job of interpreting what I read.
- My teachers think that my reading is fine.

The Physiological States (PS) survey statements are:

- Reading is a pleasant activity for me.
- I feel comfortable when I read.
- I feel calm when I read.
- Reading tends to make me feel calm.
- I enjoy how I feel when I read.
- I feel proud inside when I think about how well I read.
- I feel good inside when I read.
- Reading makes me feel good.
- I think reading can be relaxing.
- Reading makes me feel happy inside.
- I feel good about my ability to read.
- Deep down, I like to read.

The Progress (PR) survey statements are:

- I read better now than I could before.
- I can handle more challenging reading materials than I could before.
- When I read, I don't have to try as hard to understand as I used to.
- I am getting better at reading.
- I understand what I read better than I could before.
- I can understand difficult reading materials better than before.
- When I read, I recognize more words than before.
- I have improved on assignments and tests that involve reading.
- I can figure out hard words better than I could before.

- I can concentrate more when I read than I could before.
- When I read, I need less help than I used to.
- I read faster than I could before.
- Reading is easier for me than it used to be.
- My understanding of difficult reading materials has improved.
- I can analyze what I read better than before.
- Vocabulary words are easier for me to understand when I read now.

APPENDIX C

INFORMED CONSENT FORM

TITLE OF RESEARCH STUDY: Flipping Scripts:
Mentoring for Secondary Readers

RESEARCH TEAM: Mr. Terry Cross, Educational Psychology, [redacted] as part of a dissertation, being conducted under the supervision of Dr. Wendy Middlemiss

Your child is being asked to participate in a research study. Taking part in this study is voluntary. The investigators will explain the study to you, and he will any answer any questions you might have. It is your choice whether or not you allow your child to take part in this study. If you agree to have your child participate, and then choose to withdraw your child from the study, that is your right, and your decision will not be held against you.

Your child is being asked to take part in a research study about changes in the attitudes for reading that may occur when high school students participate in an activity where they allow younger students to read to them in a setting outside of the high school classroom.

Participation in this research study involves the high school student traveling after the regular school day to a local elementary campus and taking part in activities wherein the high school student allows the elementary student to read a self-selected children's book to them. The books will be selected by the elementary student from available books in the elementary school's library. More details will be provided in the next section. Teenaged students with a signed permission may be placed into the control or experimental group, but if the students in the control would like to be involved in the intervention plan, there will be opportunities after the study.

You might want your teenaged student to participate in this study if they enjoy interacting with younger children and have an interest in helping others. However, you might not want to participate in this study if you have a problem with them participating in five different hour-long group sessions held at the local elementary schools.

You may choose to have your child participate in this research study if they are between 14 and 17 years of age and a student in the Grand Prairie ISD.

The reasonably foreseeable risks or discomforts to your child if you choose to allow him/her to take part are negligible, which you can compare to the possible benefit of an increased positive attitude toward reading tasks. Your child will not receive compensation for participation, although limited snacks will be provided. Instead of your child being in this research study, other choices may include simply completing the survey without taking part in the reading activity at the elementary school.

DETAILED INFORMATION ABOUT THIS RESEARCH STUDY:
The following is more detailed information about this study, in addition to the information listed above.

PURPOSE OF THE STUDY

The purpose of this study is to measure changes in the attitudes for reading that may occur when high school students participate in an activity where they allow younger students to read to them in a setting outside of the high school classroom.

TIME COMMITMENT:
Participation in this study will be performed during three different days, with hour long sessions, within a possible six-weeks period.

STUDY PROCEDURES:
Students will attend five one-hour reading sessions at one of the GPISD elementary schools during a scheduled after- school program. The anticipated length of time the students will be at the reading site for about one and a half hours. One hour will be spent in reading with the elementary students and the other thirty minutes will be involved in taking a simple survey, Reader Self-Perception Scale.

The high school students will be paired with an elementary student and their role will be to watch and listen as the elementary student reads a self-selected book to them. The high school student will offer feedback and help as needed.

After five sessions of this intervention, the high school student will retake the "Survey of Adolescent Reading Attitudes" to determine any growth in their attitudes toward the reading tasks. The surveys will be coded for anonymity and there will be no collection of personal data. Allowing your child to participate will not impact the grade in their class but will possibly help them to gain a more positive association with reading tasks, that can potentially increase their grades.

Please read carefully the parental informed consent and child assent and be sure to contact the research team with any questions or concerns you may have.
If you grant permission for your child's participation, your child will be asked to complete a survey at the beginning and at the end of three reading sessions to determine growth in attitudes.

All personally identifiable materials will be disposed of after the surveys are collected.

AUDIO/VIDEO/PHOTOGRAPHY:
There will be no audio recording, video recording, or photography included as a part of this study.

POSSIBLE BENEFITS:
Students participating in this study may increase their attitudes toward reading, and the increase in those attitudes may result in more engagement with reading in the student's classes.

POSSIBLE RISKS/DISCOMFORTS:
There are no anticipated risks involved with this study. If you experience excessive discomfort when completing the research activity, you may choose to stop participating at any time without penalty.

The researchers will try to prevent any problem that could happen, but the study may involve risks to the participant, which are currently unforeseeable. UNT does not provide medical services, or financial assistance for emotional distress or injuries that might happen from participating in this research. If you need to discuss your discomfort further, please contact a mental health provider, or you may contact the researcher who will refer you to appropriate services. If your need is urgent, helpful resources include [provide relevant 24- hour resource information and campus or community resources.

This research study is not expected to pose any additional risks beyond what you would normally experience in your regular everyday life. However, if you do experience any discomfort, please inform the research team.

COMPENSATION:
Although snacks will be provided for the participants, there are no monetary or grading compensations provided for this study. If you choose not to complete all study procedures, you will still receive snacks at the reading site during the session.
There are no alternative activities offered for this study.

CONFIDENTIALITY:
Efforts will be made by the research team to keep [you and] your child's personal information private, including research study and disclosure will be limited to people who have a need to review this information. All paper and electronic data collected from this study will be stored in a secure location on the UNT campus and/or a secure UNT server for at least three years past the end of this research. Research records will be labeled with a code and the master key linking names with codes will be maintained in a separate and secure location.

Your child's participation in this study is anonymous, and the information you provide cannot be linked to their identity. The results of this study may be published and/or presented without naming your child as a participant. The data collected about your child for this study may be used for future research studies that are not described in this consent form. If that occurs, an IRB will first evaluate the use of any information that is identifiable to you, and confidentiality protection would be maintained

Effort to protect the confidentiality of your records, as described here and to the extent permitted by law. In addition to the research team, the following entities may have access to your records, but only on a need-to-know basis: the U.S. Department of Health and Human Services, the FDA (federal regulating agencies), the reviewing IRB, and sponsors of the study.

CONTACT INFORMATION FOR QUESTIONS ABOUT THE STUDY:
If you have any questions about the study, you may contact Mr. Terry Cross at 972-809- 5711. Any questions you have regarding your rights as a research subject, or complaints about the research may be directed to the Office of Research Integrity and Compliance at 940-565- 4643, or by email at untirb@unt.edu.

CONSENT:
Your signature below indicates that you have read, or have had read to you, all of the above.

You confirm that you have been told the possible benefits, risks, and/or discomforts of the study.

You understand that your child does not have to take part in this study, and your refusal to allow participation, or your decision to withdraw will involve no penalty or loss of rights or benefits.

You understand your child's rights as a research participant and you voluntarily consent to allow your child to participate in this study; you also understand that the study personnel may choose to stop your child's participation at any time.

By signing, you are not waiving any of [you and] your child's legal rights.

Please sign below if you are at least 18 years of age and voluntarily agree to participate in this study.

_____ _____

SIGNATURE OF PARTICIPANT DATE

*If you agree to participate, please provide a signed copy of this form by typing your name on the line provided and returning to the researcher team. They will provide you with a copy to keep for your records.